

Fig. 4

```
graph TD
    Start([SLEEP PROCESSING]) --> S10{S10: SLEEP PROCESSING IS PERMITTED?}
    S10 -- NO --> End([END])
    S10 -- YES --> S11[S11: I/O MONITORING PROCESSING]
    S11 --> S12{S12: EXTERNAL CONDITION DETECTED WITHIN MONITORING TIME?}
    S12 -- YES --> S20[S20: TIMER RESET]
    S20 --> S12
    S12 -- NO --> S13[S13: CPU SLEEP PROCESSING]
    S13 --> S14{S14: EXTERNAL CONDITION DETECTED?}
    S14 -- YES --> S18[S18: CPU ACTIVE PROCESSING]
    S18 --> S19[S19: TIMER RESET]
    S19 --> S14
    S14 -- NO --> S15{S15: CLOCK FORWARD/BACK ADJUSTMENT TIME?}
    S15 -- YES --> S16[S16: CPU ACTIVE PROCESSING]
    S16 --> S17{S17: PRESET TIME ELAPSED?}
    S17 -- YES --> S15
    S17 -- NO --> S13
```

The flowchart illustrates the sleep processing routine. It begins with a start point labeled "SLEEP PROCESSING". A decision diamond (S10) asks "SLEEP PROCESSING IS PERMITTED?". If the answer is "NO", the process ends at "END". If "YES", it proceeds to a process rectangle (S11) labeled "I/O MONITORING PROCESSING". From S11, it goes to a decision diamond (S12) asking "EXTERNAL CONDITION DETECTED WITHIN MONITORING TIME?". If "YES", it leads to a process rectangle (S20) labeled "TIMER RESET", which then loops back to the entry point before S12. If "NO", it proceeds to a process rectangle (S13) labeled "CPU SLEEP PROCESSING". From S13, it goes to a decision diamond (S14) asking "EXTERNAL CONDITION DETECTED?". If "YES", it leads to a process rectangle (S18) labeled "CPU ACTIVE PROCESSING", which then leads to a process rectangle (S19) labeled "TIMER RESET". From S19, a dashed line indicates a loop back to the entry point before S14. If "NO" at S14, it proceeds to a decision diamond (S15) asking "CLOCK FORWARD/BACK ADJUSTMENT TIME?". If "YES", it leads to a process rectangle (S16) labeled "CPU ACTIVE PROCESSING", which then leads to a decision diamond (S17) asking "PRESET TIME ELAPSED?". If "YES" at S17, it loops back to the entry point before S15. If "NO" at S17, it loops back to the entry point before S13.